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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,059	02/09/2001	Tsutomu Chikazawa	FUJM 18.307	6940
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HELFGOTT & KARAS, P.C. 60th FLOOR EMPIRE STATE BUILDING NEW YORK, NY 10118			EXAMINER MOORE, IAN N	
			ART UNIT 2661	PAPER NUMBER

DATE MAILED: 08/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/781,059

Applicant(s)

CHIKAZAWA ET AL.

Examiner

Ian N Moore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3-16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2-9-2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. See MPEP § 608.01(b).

Claim Objections

2. Claims 1, 11, 13 and 16 are objected to because of the following informalities:

Appropriate correction is required.

Claim 1 recites, in lines 11-12 "...inputting...said cross-connect information includes a signal direction and **information requesting** a station..." For clarify, it is suggested to insert a **comma** ",", between "information" and "requesting", i.e., "**...information, requesting...**"

Also, in page 130, line 6, states, "...gathering...a channel and node information identifying said signal-adding..." For clarify, it is suggested to insert a **comma** ",", between "information " and identifying, i.e., "**...information, identifying...**"

Claim 11 recites, "...DCP connection..." in line 5, it is suggested to describe the acronym when reciting for the first time in the claim.

Claim 13 recites, "...adding a signal, dropping a signal or relaying after dropping a **signal and path information**..." in line 4-5. For clarify, it is suggested to insert a comma "," between "signal" and "path information", i.e., "...a **signal, and path information**..."

Claim 13 recites, "...RIP table..." in line 3, it is suggested to describe the acronym when reciting for the first time in the claim.

Claim 16 recites, "...adding or dropping a channel...and **node information identifying** said other transmission apparatus..." in lines 6-7. For clarify, it is suggested to insert a comma "," between "node information" and "identifying", i.e., "...**node information, identifying** ..."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neuendorff'969 (U.S. 6,657,969) in view of Mitsuki'278 (JP 09-093278).

Regarding claim 1, Neuendorff'969 discloses a transmission apparatus (see **FIG. 3, SNET node 130**) having a function to switch a line with a redundant configuration comprising a working line (see **FIG. Ocn(W) 210.2** which carries

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working channel) and a protection line (see **FIG. 3, Ocn(E) 210.5 which carries the protection channel)** from said working line to said protection line in the event of a transmission-line failure on said working line (see **col. 1, lines 16-35, 50-64; in the event of the failure in SONET BLSR ring performs a ring switch and/or span switch from working to protection channel)**, said transmission apparatus comprising:

a cross-connect-classifying means (see **FIG. 4, Provisioning Agent 520, which is within TCC 210.3 (see FIG. 3))** for inputting cross-connect information from an external source (see **FIG. 3, computer 150; see col. 5, lines 34-55; note that personal computer 150 is used to provision the cross-connect to SONET node 130)** and classifying said information into cross-connect categories (see **col. 7, lines 9-60; Table generation steps TGS I; col. 11, lines 55 to col. 12, lines 60; see col. 15, lines 25-42; Table 5, note that the user provisioned cross-connects information are categorized as add, drop, or pass-through at each STS channel)**,

wherein said cross-connect information includes a signal direction (see **col. 4, lines 10-67; Table 2 and Table 3; the cross-connect information includes STS channel number and its direction East or West direction)** and information (Table 2 and Table 3; the cross-connect information includes STS channel number), requesting a station employing said transmission apparatus (see **FIG. 4, BTP 410 of Node 130; see col. 7, lines 25-40; see col. 11, lines 35 to col. 12, lines 60; note that provision agent 520 sends the provisioning/cross-connect information from TGS.1A through TGS.1E are sends to the BTP 410 with the requested cross-connect type of information)** to carry out one of the following pieces of processing:

addition of a signal to either said working line or said protection line (see col. 11, lines 55 to col. 12, lines 60; see col. 15, lines 1-45; Table 5, East/West Local STS Information Table, ELSIT or WLIST; a signal which maps to STS channel is to source STS of working or protection of outgoing lines; also see squelched Added, TGS.4A-2A);

dropping of a signal from either said working line or said protection line (see col. 11, lines 55 to col. 12, lines 60; see col. 15, lines 1-45; Table 5, East/West Local STS Information Table, ELSIT or WLIST; a signal which maps to STS channel is dropped from the destination STS of working or protection of incoming lines; also see squelched dropped, TGS.4A-2B);

passing-through of a signal (see col. 11, lines 55 to col. 12, lines 60; see col. 15, lines 1-45; Table 5, East/West Local STS Information Table, ELSIT or WLIST; a signals which maps to STS channel is passthrough between source STS and destination STS of working or protection of between outgoing and incoming lines; also see squelched dropped, TGS.4A-2C and 2D); and

a communication means (see FIG. 4, a combined system of BLSR Table Provisioning, BTP, 410 and BLSR UDP Server, BUS, 420 with communications means to neighbor node 130.j) for gathering the cross-connect category of each signal-adding or signal-dropping transmission apparatus (see col. 15, lines 25-45 to col. 16, lines 5; adding, dropping, or passthrough cross connect) of a channel (see col. 7, lines 15-20; TSG.1D where STS channel number) and node information (see col. 7, lines 11-15; TSG.1B. node ID30-40; note that BTP receives node ID and STS

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channel number information from the agent 520 along with their add/drop/passthrough cross connection types),

identifying said signal-adding or signal-dropping transmission apparatus by communications with an adjacent transmission apparatus (see **FIG. 4, neighbor Node 130.j**) for each channel (see **col. 7, lines 35-57; TGS.3D. and TGS.4A-1**; note that **BTS sends cross-connect request information which contains signal add/drop/passthrough to each neighbor node, where the STS channel will be added/dropped/passthrough in order to identify and construct the ring map and construct squelch table; also see col. 12, lines 60 to col. 16, lines 34**);

a connection-implementation-classifying means (see **FIG. 4, BLSR Table Provisioning, BTP, 410 which creates and update routing table, ELSIT/WLSIT table, and squelch table**) for classifying implementations of connection into appropriate connection categories in accordance with gathered cross-connect categories of other transmission apparatuses (see **col. 7, lines 55 to col. 8, lines 6; see col. 14, lines 1-65; note that neighbor nodes responds the to the cross connect request, and the ring map and squelch table is created or updated according to the responded cross connect information**), and

the cross-connect category of said transmission apparatus employed in said station to create a table (see **col. 4, lines 10-67; a squelch table, Table 2; see col. 9, lines 30-44; step TGS.4, see col. 14, lines 54 to col. 16, lines 35; note that based on the responds from East neighbor node and west neighbor node, the squelched and payload tables are created**) for executing control to switch a line in the event of a failure for each channel (see **col. 2, lines 15-64; see col. 23, lines 55-65; note that**

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when the failure occurs the traffic is switched from one line to the other and the squelched table is used to prevent misconnection);

a switching control means (see FIG. 3, circuit 324 within TCC card which control by using K bytes for APS switching) for executing control to switch said line based on a location of occurrence of a failure identified by said table (see FIG. 3, circuit 324 controls Ocn(W) and its OcnP west processor, and Ocn(E) with its OcnP east processor by indicating K bytes in order to perform a ring or span switch after the failure by utilizing a squelch table to avoid channel misconnection; see col. 2, lines 15-64, see col. 6, lines 1-34).

Neuendorff'969 does not explicitly disclose a failure-reporting means for transmitting information on a failure (see Mitsuki'278 FIG. 7, a combined system of High speed Transmitter HT, supervision unit SV and Controller MP, for transmitting Path Alarm Indication Signal P-AIS and/or SF-R alarm signal) including node information of said station (see Mitsuki'278 FIG. 35a, SF-R/F/E/Long or SF-R/F/E/short; where node E is the SF detection station) in the event of said failure on a transmission line (see Mitsuki'278 FIG. 35 a, a failure between node F and E) between said station (see Mitsuki'278 FIG. 35 a, Node E) and an adjacent station (see Mitsuki'278 FIG. 35 a, Node F); see page 4-5, paragraph 13-20; node E sends the alarm signal with node ID "E" in the message to node F);

a failure-occurrence-location-identifying means (see Mitsuki'278 FIG. 7, a combined system of reception interface unit Receiver RT, supervision unit SV and Controller MP for receiving SF-R and AIS signals; see page 9-10, paragraph

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60-63) for identifying the location of occurrence of a failure from received information on said failure (see **Mitsuki'278 FIG. 35a, SF-R/F/E/Long or SF-R/F/E/short; node F received the SF signal and the signals contains both node IDs, node E and F; thus, location of a failure identified in the alarm message;** page 4-5, paragraph 13-20).

a switching control means (see **Mitsuki'278 FIG. 7, a combined system of HS, changed system unit and main signal system unit HM)** for executing control to switch said line based on a location of occurrence of a failure identified by said failure-occurrence-location-identifying means (**page Mitsuki'278 4-5, paragraph 13-20; page 9-10, paragraph 60-63; note that upon detection of SF or SD failure and reception of SF or SD signals along with the node IDs, the node E or F performs APS switching from failed channel to protection channel by utilizing K bytes defined by SONET BLSR).**

However, the above-mentioned claimed limitations are taught by Mitsuki'278. In view of this, having the system of Neuendorff'969 and then given the teaching of Mitsuki'278, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Neuendorff'969, for the purpose of providing BSLR failure detection, alarming and APS switching mechanism in accordance with squelch table, as taught by Mitsuki'278, since Mitsuki'278 states the advantages/benefits at page 5, paragraph 21-23 that it would provide an improvement in the speed of squelch processing. The motivation being that by utilizing BLSR protocol and squelch table, it will accelerate the protection switching time after failure detection, which is increase, the reliability of the network.

Regarding claim 2, Neuendorff969 discloses determines said cross-connect information to pertain to one of cross-connect categories of:

addition of a signal to said working line (see col. 11, lines 55 to col. 12, lines 60; see col. 15, lines 1-45; Table 5, East/West Local STS Information Table, ELSIT or WLIST; a signal which maps to STS channel is added to source STS of working east/west of outgoing line; also see squelched Added, TGS.4A-2A);

dropping of a signal to said protection line (see col. 11, lines 55 to col. 12, lines 60; see col. 15, lines 1-45; Table 5, East/West Local STS Information Table; ELSIT or WLIST; a signal which maps to STS channel is dropped from destination STS of working or protection of incoming lines; also see squelched dropped, TGS.4A-2B);

Allowable Subject Matter

4. Claims 3-10, 12, 14, 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. Claims 11,13 and 16 are objected to as being dependent upon a rejected base claim and being objected in paragraph 2, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N Moore whose telephone number is 703-605-1531. The examiner can normally be reached on M-F: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Vanderpuye can be reached on 703-308-7828. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

INM
8/12/04



KENNETH VANDERPUYE
PRIMARY EXAMINER